ET420197753US

File: IBM-1052

Docket No. AUS920010988US1
Quintero et al.
System and Method for Controlling Invalid Password Attempts

1 / 7

Master LDAP Server
120

SS Plug-in
130

Replica LDAP
Server
160

SS Plug-in
170

Client
100

Computer Network
(Internet)
110

Strikeout
Server
140

Failed Login
Store
150

Figure 1

File: IBM-1052

Docket No. AUS920010988US1
Quintero et al.
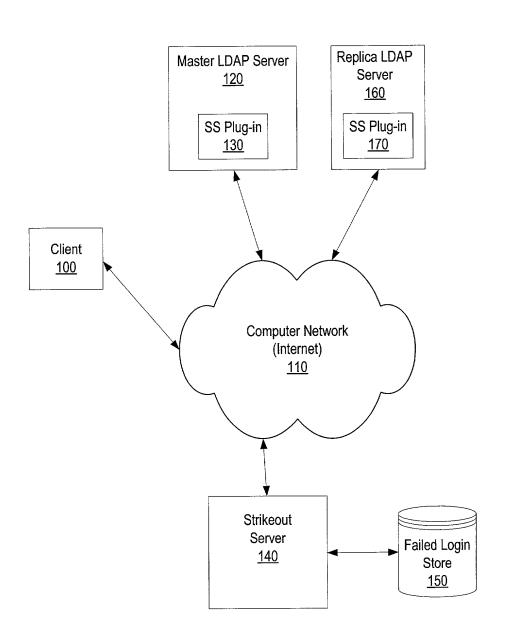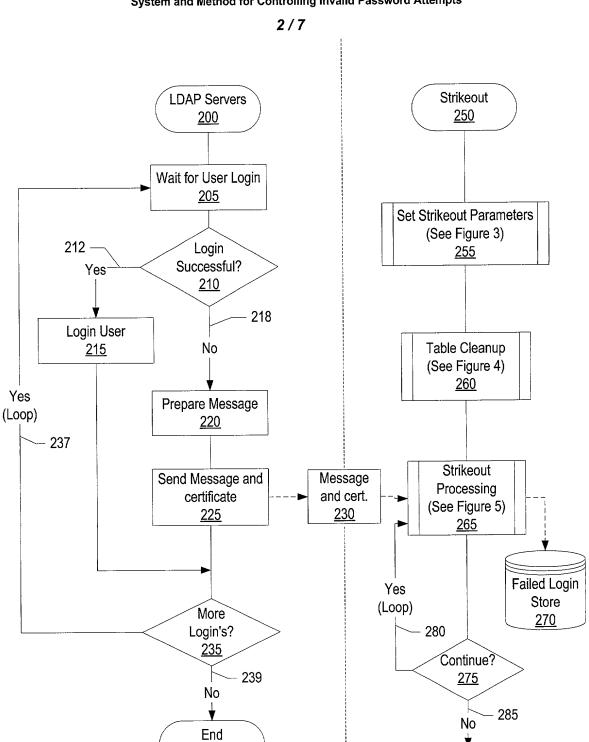System and Method for Controlling Invalid Password Attempts

2 / 7

LDAP Servers
200

Wait for User Login
205

212

Yes

Login Successful?
210

218

Login User
215

No

Prepare Message
220

Yes
(Loop)

237

Send Message and certificate
225

Message and cert.
230

More Login's?
235

239

No

End
240

Strikeout
250

Set Strikeout Parameters
(See Figure 3)
255

Table Cleanup
(See Figure 4)
260

Strikeout Processing
(See Figure 5)
265

Failed Login Store
270

Yes
(Loop)

280

Continue?
275

285

No

End
290

Figure 2

File: <u>IBM-1052</u>

Docket No. AUS920010988US1
Quintero et al.
System and Method for Controlling Invalid Password Attempts

3 / 7

Set Strikeout Parameters
<u>300</u>

Receive login from system
administrator
<u>310</u>

Valid Login?
<u>320</u>

— 322

No

Return error
<u>325</u>

— 328

Yes

Receive and Store Login
tracking period
<u>330</u>

System
Admin
<u>315</u>

Receive and Store failed
attempts allowed
<u>350</u>

Strikeout
Parameter
Store
<u>340</u>

Receive and Store cleanup
interval
<u>360</u>

Receive and Store other
parameters
<u>370</u>

Return
<u>380</u>

Figure 3

File: IBM-1052

Docket No. AUS920010988US1
Quintero et al.
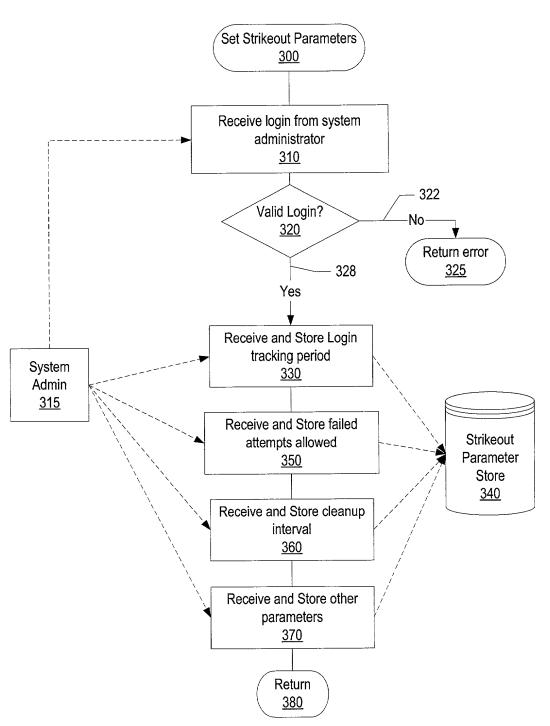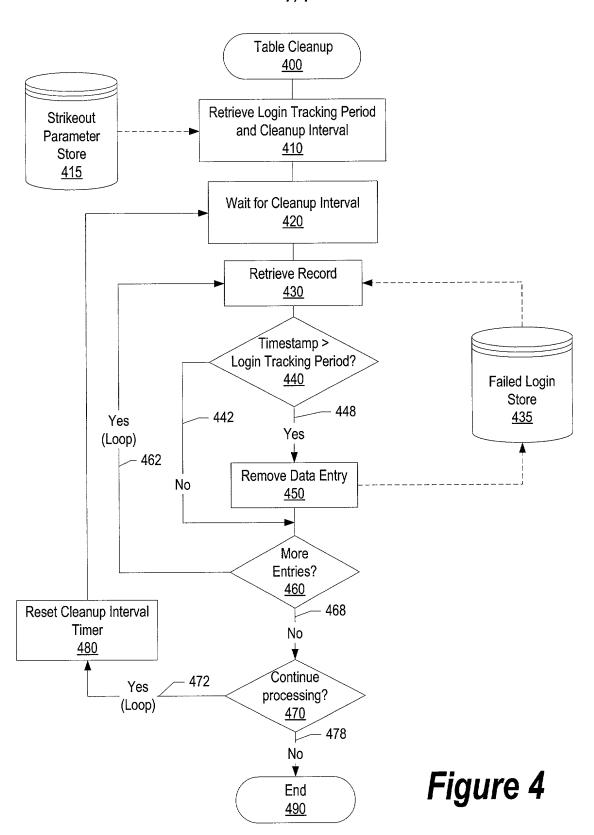System and Method for Controlling Invalid Password Attempts

4 / 7

Table Cleanup
400

Strikeout
Parameter
Store
415

Retrieve Login Tracking Period
and Cleanup Interval
410

Wait for Cleanup Interval
420

Retrieve Record
430

Failed Login
Store
435

Timestamp >
Login Tracking Period?
440

442

448

No

Yes

Yes
(Loop)

462

Remove Data Entry
450

More
Entries?
460

Reset Cleanup Interval
Timer
480

468

No

Yes
(Loop)

472

Continue
processing?
470

478

No

End
490

Figure 4

File: IBM-1052

Docket No. AUS920010988US1
Quintero et al.
System and Method for Controlling Invalid Password Attempts

5 / 7

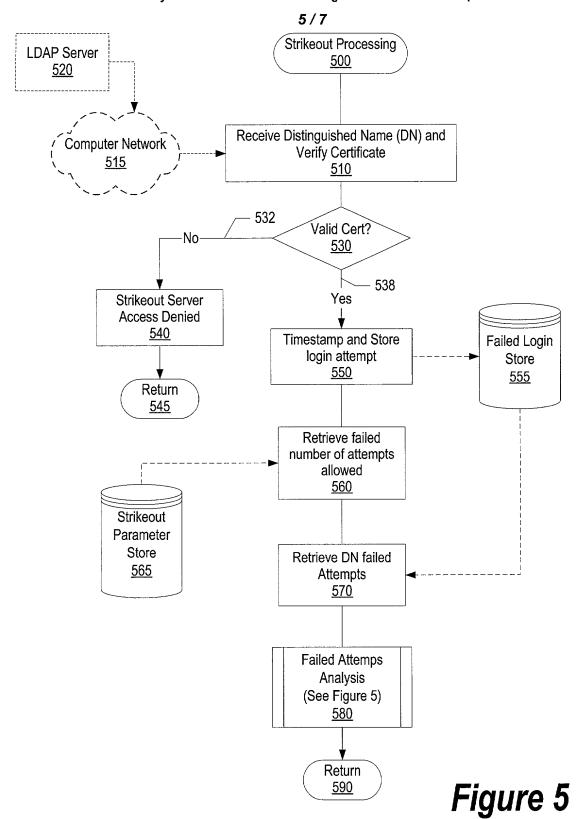Strikeout Processing
500

LDAP Server
520

Computer Network
515

Receive Distinguished Name (DN) and
Verify Certificate
510

532

No

Valid Cert?
530

538

Yes

Strikeout Server
Access Denied
540

Timestamp and Store
login attempt
550

Failed Login
Store
555

Return
545

Retrieve failed
number of attempts
allowed
560

Strikeout
Parameter
Store
565

Retrieve DN failed
Attempts
570

Failed Attemps
Analysis
(See Figure 5)
580

Return
590

Figure 5

File: IBM-1052

Docket No. AUS920010988US1
Quintero et al.
System and Method for Controlling Invalid Password Attempts

6 / 7

Strikeout
600

Master LDAP Server
650

607 — No

Failed
attempts> allowed?
605

609 — Yes

612 — Yes

Password
already null?
610

614 — No

Set password =
null
615

Failed
Login Store
620

Prepare msg. that
pw=null with digital cert.
625

Send msg. and cert. to
Master LDAP server
630

Return
640

Message
and auth.
640

Receive msg.
from strikeout
server
655

662 — No

Valid cert.?
660

664 — Yes

Access
denied
670

Set pw to null and invalid
password flag to true
680

Send message and
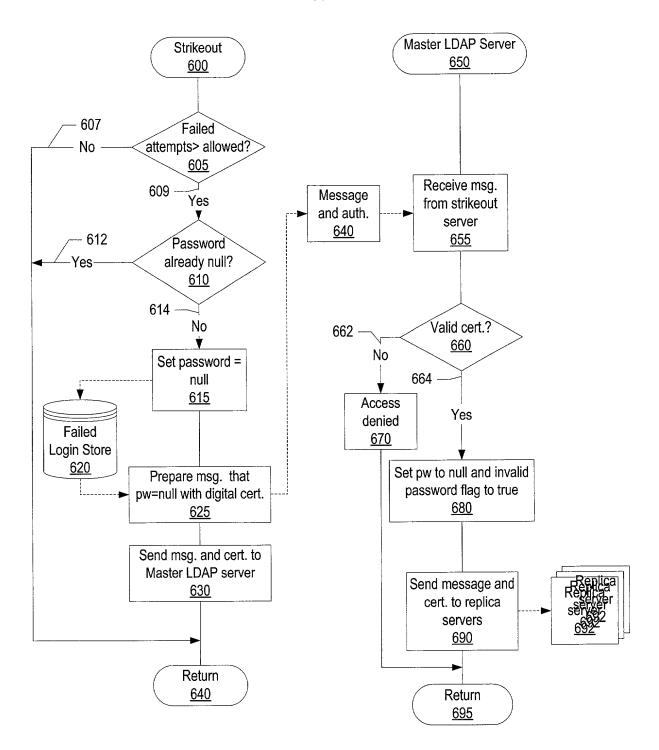cert. to replica
servers
690

Replica
server
692

Return
695

Figure 6

File: IBM-1052

Docket No. AUS920010988US1
Quintero et al.
System and Method for Controlling Invalid Password Attempts

7 / 7

Processor
700
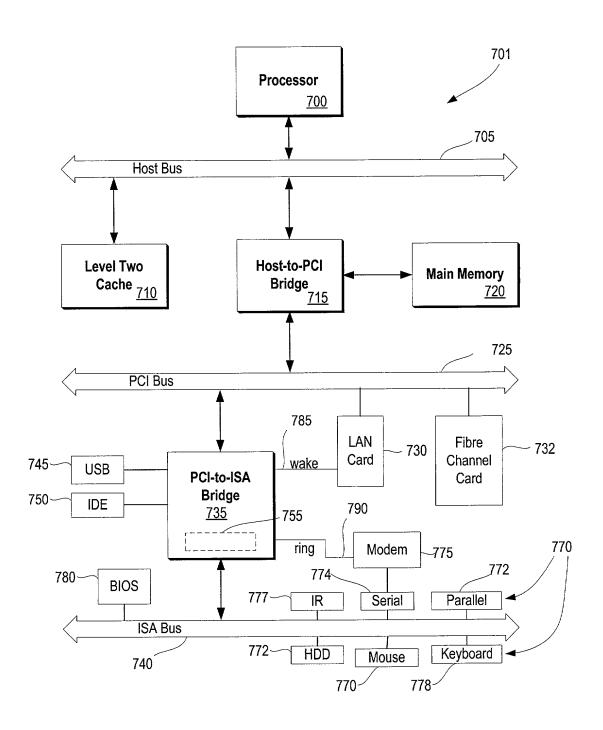
701

705
Host Bus

Level Two
Cache 710

Host-to-PCI
Bridge
715

Main Memory
720

725
PCI Bus

745 USB

750 IDE

785

PCI-to-ISA
Bridge
735

wake

LAN
Card

730

Fibre
Channel
Card

732

755

ring

790

Modem

775

780 BIOS

774

777 IR

Serial

Parallel

772

770

ISA Bus

740

772 HDD

Mouse

Keyboard

770

778

Figure 7